Students entering this program are expected to have advanced work in high school such that they can be placed into MATH 230 and CHEM 171, or higher. All courses must be passed with a C grade or higher, and no courses within the 48 required for the degree may be taken P/N without approval.

**I. MATHEMATICS (4 courses)**
- AP placement-Math 220, 224
- MATH 230 Calculus
- MATH 234 Multiple Integration and Vector Calculus

**II. BASIC SCIENCES (4 courses)**
- PHYSICS 135-2, 3 General Physics
- CHEM 171, 172 Accelerated Chemistry

**III. ENGINEERING ANALYSIS (4 courses)**
- GEN ENG 205-1 Computational Methods and Linear Algebra
- GEN ENG 205-2 Linear Algebra and Mechanics
- GEN ENG 205-3 Dynamic System Modeling
- GEN ENG 205-4 Differential Equations

**IV. ENGINEERING DESIGN AND COMMUNICATION (3 courses)**
- Speech 102, or 103 or Taken at Medical School
- IDEA 106-1, 2 Engineering Design and Communication (0.5 each) plus English 106-1, 2 (0.5 each)

**V. BASIC ENGINEERING* (5 courses)**
- A. Thermodynamics
- B. Fluids and Solids - 2 courses
- C. Material Science
- D. Probability, Statistics, and Quality Control

**VI. SOCIAL SCIENCES/HUMANITIES THEME (7 courses)**
- 5 courses at Evanston, 2 at Medical School

**VII. MAJOR PROGRAM - PART I**
- A. Chemistry

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*Basic Engineering includes Thermodynamics, Fluids and Solids, Material Science, Probability, Statistics, and Quality Control.*
CHEM 210-1, 2, 3 Organic Chemistry

B. Biology
BIOL SCI 215, 219, 308, 220, 221, 222

C. Engineering
BMD_ENG 101 Introduction to Biomedical Engineering (zero credit seminar)
BMD_ENG 305 Biomedical Signals Analysis
BMD_ENG 306 Biomedical Systems Analysis
BMD_ENG 307 Quantitative Experimentation and Design
BMD_ENG 350 Transport Fundamentals
MECH ENG 333 Mechatronics (or DSGN 298 and 398)

D. Tracks – 3 courses
Each student in the Biomedical Engineering Program completes his/her course of study either by taking two track courses from Category A and one course from Category B. None of the Bio courses specified above can count toward these 3 courses. Courses in Category A and Category B can be found in the complete Biomedical Engineering curriculum.

VIII. MAJOR PROGRAM - PART II
Three science courses from the first two years of Medical School.

IX. FREE ELECTIVES
Two courses from the first two years of Medical School.
AP placement - Chemistry

Total number of courses for the BS degree: 48

Number of courses required on EV campus if only come in with Math 220, 224, and Chem 101: 37